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Case No. CE10711R

REMARKS

Reconsideration of the above-referenced application is respectively requested in view of the above amendments and these remarks. Claims 1-20 are currently pending.

In the Office Action, claims 8-11 and 15-18 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant notes with appreciation that the subject matter of these claims is deemed to be allowable if rewritten to include all limitations of the superseding and rejected claims. Applicant wishes to reserve the right to rewrite these claims, should further discussions regarding the base and superseding claims prove unrewarding.

In the Office Action, claims 1, 5, 6, 12, and 19 were rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent Application Publication No. 2002/0009066 to Shimizu et al. Applicant has amended independent claims 1, 12 and 19 to obviate this rejection. Focusing on independent claim 1, the present invention is directed to the establishment of a special communications channel between a home agent and a foreign agent within a wireless communication system. This special communication channel is separate from the unicast tunnels that are also established between the home agent and the foreign agent within the wireless communication system. The special communication channel is dedicated to communicating messages carried by the system that are addressed to multiple mobile nodes within the system. The unicast tunnels are used for other messages carried by the system.

As seen in amended independent claims, the present invention detects whether a message that is received by the home agent is a message that is addressed to multiple mobile nodes. Such messages include, but are not limited to, Broadcast messages and Multicast messages. Broadcast and Multicast messages can be detected by any given method including examination of their addresses. When a Broadcast or Multicast message is detected, the message is sent to the foreign agent through the special communications channel, which is separate from the unicast tunnels that are used for other types of messages. In at least one embodiment of the present invention, different special communications channel can be established for the Broadcast messages and the

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Multicast messages. By the establishment of the special communications channel through the foreign agent and separate from the unicast tunnels, the performance of the wireless communication system can be optimized. Comparable amendments to independent claim 1 have been made to claims 12 and 19 such that these claims also are directed to the special communications channel being separate from the unicast tunnel.

The Office Action states that Shimizu disclose establishing a communications channel, detecting whether a message is addressed to multiple mobile nodes and then sending messages to the multiple nodes through the special communications channel. In paragraphs [0073-0074], Shimizu describes the creation of the communications path within an IP network that includes a home agent and a foreign agent. It appears from the citations, e.g. paragraphs [0022-0024], that the Office Action is characterizing the combining of a plurality of Binding Request Messages for obtaining the care-of address of a plurality of mobile terminals into an extended Binding Request Message, when the plurality of mobile terminals are coupled to the same home agent as using a special communications channel to send messages that are addressed to multiple mobile nodes. Shimizu is directed to a route optimization method and an agent apparatus by which an IP packet route is optimized to a communication system employing a mobile IP protocol. In particular, Shimizu is directed to combining the plurality of Binding Request Messages to obtain the care-of address of a plurality of mobile terminals into the Extended Binding Messages as optimizing the communication system.

Shimizu's Binding Request Messages to obtain the care-off address of a plurality of mobile terminals into the Extended Binding Messages does not disclose the present invention. More particularly, Shimizu discloses the bundling Binding Request Messages when there are similar messages or Broadcast and Multicast messages being sent to a plurality of mobile terminals located in the foreign agent. Shimizu does not disclose the present invention, as seen in amended independent claims 1, 12 and 19 that establishes a special communications channel through the foreign agent where the special communications channel is separate from any other communication channel such as the unicast tunnels that are used from messages being sent to multiple mobile nodes within controlled by the foreign agent. As seen in the Shimizu figures there are no different

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channels between the home agent and the foreign agent that are used for messages that are being sent to multiple nodes.

In view of the foregoing, it is respectfully submitted that Shimizu does not anticipate amended independent claims 1, 12 and 19. As claims 5 and 6 depend upon amended claim 1 and include all the limitations of that independent claim, it is respectfully submitted that claims 5 and 6 are also not anticipated by Shimizu. Applicants therefore respectfully request that the rejection under Section 102(b) be withdrawn as to claims 1, 5, 6, 12 and 19.

In the Office Action, claims 2-4, 7, 13, 14 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimizu in view of United States Patent No. 6,781,999 to Eyuboglu. As stated above, Applicants have amended independent claims 1, 12 and 19, upon which the claims rejected under Section 103(a) depend, to overcome the rejection to Shimizu. With respect to claims 2 and 20, the Office Action cites Eyuboglu for the premise that the messages that are addressed to multiple mobile nodes can be Broadcast messages or Multicast messages. With respect to claims 3 and 13, the Office Action cites Eyuboglu as establishing of channels for the Broadcast and Multicast messages and where the Broadcast and Multicast messages are sent over the channels. With respect to claims 4 and 14, the Office Action cites Eyuboglu as establishing a single channel for sending both Broadcast and Multicast channels and sending the Broadcast and Multicast messages to the foreign agent over the channel. With respect 7, the Office Action cites Eyuboglu for opening a Generic Routing Encapsulation between the foreign agent and the home agent for receiving the messages addressed to multiple nodes.

Assuming *arguendo* that Eyuboglu does disclose the matter as stated in the Office Action, the combination of Shimizu and Eyuboglu does not disclose the establishment of the special communications channel to the foreign agent where the special communications channel is separate from the unicast channels where the special communications channel is used for messages addressed to a plurality of mobile nodes. It is therefore respectfully submitted that claims 2-4, 7, 13, 14 and 20 are not obvious and are therefore patentable over Shimizu in view of Eyuboglu. Applicants respectfully request that the rejection under Section 103(a) be withdrawn.

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As the applicants have overcome all substantive rejections and objections given by the Examiner and have complied with all requests properly presented by the Examiner, the applicants contend that this Amendment, with the above discussion, overcomes the Examiner's objections to and rejections of the pending claims. Therefore, the applicants respectfully solicit allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter.

Please charge any fees associated herewith, including extension of time fees, to 50-2117.

Respectfully submitted,
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